HP Color LaserJet and LaserJet and LaserJet MFP Series Printer - 49 Service Errors

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Issue Description and Troubleshooting Approach

The purpose of this document is to provide a detailed explanation of how to troubleshoot the 49.xxxx errors that display on the control panel of a HP LaserJet or HP LaserJet MFP Series Product.

NOTE: LaserJet formatter PCA's are rarely the root cause of 49 service errors. Please do not replace the formatter or firmware DIMM/Flash unless troubleshooting identifies it as the root cause

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It is important to narrow down and isolate the action (s) that is responsible for causing the error to be displayed. Once this has been completed:

- a workaround
- an unsupported action will have been identified
- or the necessary detail will have been gathered to provide to Hewlett-Packard, in the event that the issue needs to be escalated.

NOTE: Without the “exact steps” to reproduce the 49 error it is challenging for the HP Labs to find the root cause and provide a potential solution.

This document is broken into multiple sections which provide basic troubleshooting and information gathering tools. In addition, there are alternative methods to help identify the responsible actions for the error and its cause. Evaluate each of the following scenarios to determine which is applicable.

Error can be reproduced

If the error can be reproduced, use the following sections of this document:

- Product-specific documents
- Clearing the error
- Validating the firmware
- Table #1/Stack Trace
- Hardware, if applicable

Power-cycle doesn’t eliminate error

If the error cannot be eliminated by a power-cycle, use the following sections of this document.

- Product specific documents
- Clearing the error
- Hardware
- Table#1

Feature-specific error

The error has been narrowed down to a specific feature.

- Product specific documents
- Validating the firmware
- Software, Sending, Faxing, and environmental troubleshooting
- Table#1/Stack Trace

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Stack Trace Random Error(Table# 1)

The error is random and has not been narrowed down to any feature.

- All sections
- Table#1/Stack Trace

Product-specific documents

The above-mentioned documents are available on the HP internal web site known as Tech Web They will be found under the Issue section on the product page. Each document will list the known 49 errors that are specific to the product and will provide a solution. If a solution is not found, return to this document to help narrow down the possible cause so that either a workaround can be provided or an escalation can be initiated, if necessary.

For documents with a non-public security level, go to the following website: http://techwebiii.cv.hp.com/sites/TechWeb/default.aspx

For documents with a public security level, go to http://welcome.hp.com/country/us/en/support.html

For HP partners

HP partners may find these documents on the CSN partner web site. Each document will list the known 49 errors specific to the product and will provide a solution. If a solution is not found, return to this document to help narrow down the possible cause. Either a workaround can be provided or enough information will be provided to contact HP for additional help with finding a resolution.

For documents with a non-public security level, go to http://www.hp.com/partners/csn

For documents with a public security level, go to http://www.hp.com/go/support

Troubleshooting by isolation

1. **Clearing the error**

   A 49 error can usually be cleared from the control panel with a power-cycle. A power cycle will only clear the error from the control panel and will not ensure that the error does not return. If the device immediately returns to an error state after the power-cycle has been performed then troubleshooting should start with the “Hardware” section of this document.

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2. **Validating the Firmware**

If the printer/MFP returns to READY, select a printer/MFP that displays the error and update with the latest firmware. An update could disable some third party solutions (see “NOTE # 1 Third Party Accessories” for more information).
If an update cannot be performed because the new firmware revision has not been qualified by the customer or there is a concern regarding a third party solution, troubleshoot the issue without upgrading the firmware. Use this document to identify the action responsible for the error. (It may be determined, during the troubleshooting process, that an update may be unavoidable if the issue is to be resolved)

a. Updating Formatter/Print Controller
    - Updating the printer/MFP firmware to the latest version should be performed as part of the normal troubleshooting process.
    - Print a configuration page and check the firmware version.
    - Compare the version’s date code to what is available for the product from the product support page. Go to the Hewlett-Packard home page at www.hp.com and search for drivers and downloads.
    - Update if there is a newer version available.

b. Updating EIO/Embedded JetDirect:
    In addition to upgrading the printer/MFP firmware it is also recommended that the JetDirect EIO card or Embedded JetDirect firmware be updated.
    Contact a regional HP customer support center for more information on how to validate whether the firmware is the latest and how and where to obtain firmware and update steps if an update is necessary
    Once the device(s) have been updated, the device(s) should be monitored by the customer or service engineer for at least one week to determine if the error is no longer appearing.
    If the error is eliminated by the upgrade and some details are known about what was causing the error then the issue should be communicated to a local HP support center for documenting. If the error continues or the customer is unwilling to update then start the troubleshooting process by first gathering all pertinent information.

3. **Gathering the Information**

Use as many resources, such as end users, key operators and administrators of the product, to isolate the cause of the error. Learn as

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much as possible about the symptoms, environment, and actions being taken with the device when the errors are encountered.
Refer to the following questions as a guide to gather additional information:

a. **Can anyone recreate the error?**

i. If the answer is YES Then perform the following steps:

i. Document the steps used to recreate the error.
ii. Gather the applicable information contained in “Table #1” and a stack trace (See Stack Trace Section Below).
iii. After the information has been gathered, try to provide an alternative way to perform the task which is responsible for the error.
iv. Use the section below labeled “Software, Sending, Faxing and Environmental (Network)” to help identify workarounds/alternative methods.
v. These alternative methods can be used as a workaround or solution depending on how the customer feels but the issue should still be presented to HP for visibility and documenting.
vi. Present all of the information gathered to the regions HP customer support center and ask to be escalated if no workarounds are available or the customer would prefer not to use the workarounds as a solution.

ii. If the answer is NO, then use the following questions as a question template to help isolate the possible cause of the error.

i. Was someone printing a print job when the error was encountered? If so, do we know who and do we know what they were printing? Is the file or job available for testing?
ii. Was an incomplete print job found at the device when the error was discovered? If so, do we know who was printing it and do they have the job/file available for testing?
iii. Was someone sending or receiving a fax and/or configuring the device for any fax functions on the control panel? If so, what else is known about the fax transmission or the functions being configured?
iv. Was someone sending an e-mail or using Send to Folder, Send to FTP, or Send to Workflow options?

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Were they configuring the device to perform any of these actions at the control panel? If so, what else is known about the functions being used or the configurations being performed?

v. Was someone performing a copy job or configuring the device for a copy job? If so, do we know what type of copy job they were performing or the configurations being selected?

vi. Was someone clearing a jam or attaching or removing anything from the device? If so, how was this being done?

vii. Was someone configuring anything with the touch screen control or menu selections found on the device? If so, what were they configuring and what menus here they using?

viii. Was someone using Web JetAdmin or the devices Embedded Web server to configure or perform a function? If so, do we know what feature or setting they were configuring or action they were performing?

ix. Was anyone using the direct PDF print feature? If so, is the file available for testing?

x. What time of the day are the errors seen on the device? Who was in the office? How often have they found the device in the error state? Is it always displaying the same error?

iii. If the answer to any of the above questions is, “YES” or “We think so” but the error still cannot be recreated, then refer to the following information:

i. Troubleshooting should be focused in suspect areas.

ii. The users that perform those actions should be asked to document any additional occurrences of the error.

iii. Include all tasks being performed and what the device was doing or it’s state when the error occurred.

iv. Monitoring should continue until someone is able to recreate the error or has a very good idea of what is taking place at the device when the error occurs.

v. If after some time progress is not made then move onto the next section If the answers are “NO” or “I don’t know”

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iv. If the answers are “NO” or “I don’t know”:

i. Extensive monitoring of the device will need to be done by the users, administrators; key operators and service personnel until some correlation between certain actions and when the error occurs can be identified.
ii. Gather the information identified by “Table #1” and a stack trace (See Stack Trace Section Below) to help with troubleshooting.
iii. Provide this information to the regions HP customer support center to help them assist with this issue.
iv. At this point there are three ways to continue troubleshooting.

- Eliminate the use of a particular feature(s) from the device(s). This will help to identify if a specific feature or its configurations may be causing the issue. (Removing Functions/Features section) (Use this method first if a specific feature is suspected or there are no other engines to match settings with).
- Compare the configurations and use models of one device that fails with others that do not. Once this has been done, the next step would be to try to match the use model and configurations of the failing unit with those of a non-failing unit to eliminate the error by matching the configurations and workflows of the non-failing unit(s). This may in turn help to identify what setting or action is responsible for the error by eliminating an action or configuration. (Identifying and comparing differences section)
- Swap a device with another of the same model which is working correctly and not encountering errors. Doing this will help identify if it is the device itself, and/or its’ settings, or if it caused by the network and or items being sent from or to the device. (Swapping a customer’s non-failing device with the failing device)

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b. **Which method should be use?**

It is left to the person to determine which process to use and what is most feasible at the customer's site.

- Removing Functions/Features section : If a specific feature may be causing the error to appear or there is only one device of this type in the office, then eliminate the use of the suspected feature or remove features ,one at a time, for short periods.

- Identifying and comparing differences : If multiple devices are being used in the office in a similar fashion then identify the differences between the failing and non-failing devices. Change the configurations and use models of the failing models to match the non-failing models.

- Swapping a customer's non-failing device with the failing device : If the customer has multiple devices of the same model on the same floor, swap devices from one location to the other. This method will require more labor to move the devices and a network admin will be required to reconfigure both the IP addresses and the features being used such as Send or Fax. This is a very good method to eliminate the network and user group from the equation without having to know all the settings that are configured on the failing device.
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Remove Functions/Features

1. Use this method first if a specific feature is suspected or if there are no other engines to match settings with. The items found in Table #1 should be gathered based on what features and functions that the possible causes have been narrowed down to. Also gather the stack trace (See Stack Trace Section Below)
2. If there is a specific feature or action that is thought to be responsible, refer to the following examples. If a specific feature has not been identified then start with the most commonly used feature on the failing device first. If it appears that the most common feature is not responsible for the error, eliminate the next most commonly used feature. Continue to remove features and functions one at a time for short periods of time.

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Monitor the device after each feature/function is removed to determine if the errors disappear after the function/feature is removed.

- If printing is suspected, remove the device from the network and use only as a copier for one week. If this is not possible, eliminate all but the power-users from printing, keeping keep track of what, when, and how they are printing. If possible, also eliminate certain applications and track what was eliminated. Did the errors go away or where we able to identify something someone was printing as the cause?
- If any sending method is used or suspected, eliminate, change or limit the methods used for one week. Did the errors go away? If so, what has changed and what are we not doing now?
- If faxing is used or suspected, eliminate, change, or limit the methods used for faxing for one week. Did the errors go away? If so, what has changed and what are we not doing now?
- If copying is used or suspected, eliminate or limit to basic copy functions for one week. Did the errors go away? If so, what has changed and what are we not doing now?

Once the suspected actions or configurations have been eliminated, changed, and/or monitored for at least one week, validate whether the errors have actually been eliminated. This can be done by reviewing the event log and talking to the users of the device. Move to the “If the errors persisted:” or the “If the errors have disappeared:” section, based on the results.

Identify and compare differences

NOTE: The “identifying differences” section is used to help narrow down possible causes by comparing error-free devices with non-error-free devices that are used in the customer’s environment. This method can be used if either a specific product feature is suspected or nothing has been identified.

1. If possible, it is best to identify two devices (try to limit to two) in the same location where one encounters the error and the other does not.
2. Compare internal pages, product features being used, Fax and Send methods, operating systems, network connections, applications being used, printer drivers, network monitoring software, and how physical actions are being performed on the devices (Information gathered from Table #1).
3. Look for differences between the non-failing and failing devices and document any differences.
4. When differences are found, changes should be made to the configurations and/or network systems and applications being used with the failing device where possible. It is important to not make too many

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changes at one time but to focus on the areas that control the actions thought to be responsible for the error.
5. If no areas have been identified, start with the action most frequently used on the device.
6. Change configurations and system settings where possible so that they are identical or very similar to those on the device/s that are not failing. Once again, keep track of these settings.
7. Continue isolating by narrowing down the possible causes with a methodical process of matching configurations.
8. Continue monitoring for at least a week or until the timeframe agreed upon .
9. Move to the “If the errors still persist:” or the “If the errors have disappeared:” depending on the results after reaching the end of the agreed upon timeframe.

Swap a customer’s non-failing device with the failing device

1. First, an identical model to the failing model must be located on the customer’s site. They should have similar configurations including paper handling accessories and fax-and-send features, if applicable.
2. The units will first need to be moved. The failing unit should be moved to the physical location of the non failing unit and the non-failing unit needs to be moved to the location of the failing unit.
3. The Jet Direct Cards should remain in the engine, moving with the engines.
4. Once the devices are in their new locations, the administrator will need to reconfigure the Jet Direct cards or Embedded Jet Direct so that the IP addresses match the address of the unit that was previously there.
5. In addition, if fax-and-send are being used the configurations should be set to match those of the engine that was previously there.
6. Once all this has been completed, the users should be allowed to use the devices as normal and tracking of the errors should begin
7. If errors are encountered only with the originally failing unit then there is a specific configuration, firmware revision, or firmware/hardware component responsible for the error. It is most likely not network or print job related.
    - If the replacement unit (non failing unit) fails at the original location of the failing unit then it is most likely one a print job or application that is printed or used specifically at that location.
    - A user/area specific configuration.
    - Network configuration or a fax or send configuration specific to that location.
    - A unique task that is only performed by the user(s) in that location.

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8. In either case, gather the items found in Table #1 and a stack trace (See Stack Trace Section Below), moving on to one of the two sections below depending on whether the errors followed the device or the location.

Errors follow the originally failing device

If the errors follow the originally failing device, the information gathered in Table #1 should be compared with those gathered from the non-failing device. Once all differences have been identified, settings should be set to mimic the non-failing engine and monitored to see if it fails after the setting changes have been made. If no failures are encountered after the changes then the settings can be set back to how they were when the device was displaying the error. If identified, the steps to reproduce the failure should be communicated to HP for visibility and documenting. Present all of the information gathered to a regional HP customer support center ask to be escalated if no workarounds are available or the customer would prefer not to use the workarounds as a solution. If the device continues to display the errors even after the settings have been changed, pursue the “Removing Functions/Features” method or proceed to the “If the errors still persist” section below.

Errors stay with the original location of the failing device

If the errors stay with the location then focus on the following areas:

- Printing: look for particular print jobs that may be responsible for the error. Validate that the correct printer drivers are being used by the users and document all applications being used.
- Faxing: validate all fax settings and numbers including number dialing the device.
- Sending: look for items that are unique to the sending configuration at this location.
- Networking: determine if anything is unique with the network configuration of this device.

In addition, the “Removing Functions/Features” section can be used to continue isolating. Use the “Software, Sending, Faxing and Environmental (Network)” section for further steps if able to narrow it down to a feature.

When the responsible action is identified then the steps to reproduce it should be communicated to HP for visibility and documenting. Provide the information to a regional HP customer support center. Ask to be escalated if no workarounds are available or the customer would prefer not to use the workarounds as a solution.

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If the responsible action cannot be identified then proceed to the “If the errors still persist” section below.

If the errors still persist

Methodically remove one feature at a time until the error goes away (i.e. printing, copy, faxing or sending if applicable), in order to identify what feature or setting is responsible. Once the responsible feature is identified because the errors no longer appear then feature or settings can be added back. It is most likely that the errors will return with the use of the old settings or features, so it will be very important to narrow it down to one action or setting being used with that feature. Use the section below labeled “Software, Sending, Faxing and Environmental (Network)” to help identify actions that may be causing the error and to provide workarounds/alternative methods for performing the action. Once the responsible action has been identified try to provide an alternative way to perform the task which is responsible for the error. Present all of the information gathered to a regional HP customer support center. Ask to be escalated if no workarounds are available or the customer would prefer not to use the workarounds as a solution.

NOTE: It is important to realize that to eliminate the error and provide a solution using a workaround or a fix from hp and/ or a solution provider (if applicable) the responsible action triggering the error has to be identified.

If the errors have disappeared

The users can now start using the features and configurations that were eliminated during the isolation process.

1. The most commonly used feature/action that was eliminated should be reconfigured and added back to the use model and used/tested for 24 to 48 hours to see if the error returns once it has be added back or the action is allowed again. For example, if the faxing process was eliminated from the device it can be reconfigured and a select group of users should be allowed to use the feature for the designated timeframe.
2. For any feature or action that is added the users should be instructed to keep track of how, when and what they are doing so that all this information is known if the errors return after the process is added. Continue adding features and process one at time and until the specific action has been identified and the error can be recreated.
3. Once the error is identified, provide the steps to recreate and all the information gathered with Table #1 to HP for further investigation and escalation if necessary.

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4. After gathering the necessary information try to provide an alternative way to perform the task which is responsible for the error if necessary
5. Use the section below labeled “Software, Sending, Faxing and Environmental (Network)” to help identify workarounds/alternative methods.

If the error does not return, it is possible that an action or configuration was eliminated during the process used above. Have the customer continue to monitor the device for errors and contact if the errors return. Make sure to let them know that it is important for them to document what they changed, used or configured on the device just before the errors returned.

Software, Sending, Faxing and Environmental (Network) Alternative settings and options

The sections below will provide some alternative settings and options that may help the error from returning. Software related 49 errors are ambiguous and may be difficult or impossible to recreate in a testing environment. Due to this fact, solutions or workarounds may not always be possible for all software generated 49 errors.

Operating systems, Printing Drivers, Applications and Files

Determine whether the error occurs when printing from a specific environment (for example, Microsoft Windows, UNIX (R), Mainframe)

1. First, determine what environments are being used with the device. If only one environment such as Microsoft Windows is being used, skip to Steps 2, 3, or 4 depending on what environment is used

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    a. Ask the end users and IT personnel to help identify what environment(s) were being used when the error is encountered.
    b. Once this has been determined, eliminate the device from all but the most commonly used environment for a short period time (48 hours to 4 days) to determine if a task being performed in that environment is responsible. (It is important to emphasize to the customer how important this process of elimination is to help root cause the error) If the error is not seen in the 48 – 96 hour timeframe after removing the other environments then add one environment at a time for a 48 – 96 hour period until the errors are seen. (Note it may take some time for the error to reoccur)

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c. Once the responsible environment is determined, move to Step 2 for Microsoft Windows based issues.
d. If it is not a Microsoft Windows based issue or it can not be determined what environment is responsible move to step 4

NOTE: If it can not be determined which environment the error is initiating from, it will be very complicated to identify the action responsible for the error so that a workaround can be offered or enough detail can be provided to escalate the issue to HP.

2. Error occurs when printing out of Microsoft Windows based operating systems. Validate if any software is being used to monitor the device for status or any form of remote configuration, job accounting or tracking purposes. If the answer is YES then remove the device from the software utility for a period of time (2 to 4 days) to see if the errors disappear. If the errors do disappear, contact the software vendor for known issues. If the errors continue, reattach the device to the software utility.

a. Validate that all users are using the product specific driver for the device that is encountering the errors. If not, use the correct driver.
b. Find out what applications are being used by the users. Document those and verify if any users seem to think one application may be responsible for the errors.
c. Print from a different applications. This will help narrow down whether the error may be caused by application specific files.
d. If the device only fails with one application, print different documents within the same application.
e. Select a different product specific driver. Use the PS driver instead of the PCL6 or use a PCL 5e driver. (Microsoft Windows only).
f. If using a PScript driver try changing the Post Script Language level setting found under the “Advance” Tab \ Post Script Options.
g. If using any of the drivers available with product validate the Document Options selection is set to “Advanced Printing Features” and it is set to “Enabled”. This setting is found under the “Advanced” tab.
h. Change the graphics mode in the Printer Preferences (PCL 5e or PLC 6 only)
i. Change the resolution settings in the Printer Preferences

3. Error occurs when printing a specific document from Microsoft Windows

a. Use different fonts, fewer fonts or adjust the margin settings
b. Recreate the document, especially if the document is a PDF.
c. Validate that the users are using the product specific driver for the device that is encountering the errors. If not, use the correct driver.

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d. Select a different product specific driver. Use the PS driver instead of the PCL6 or use a PCL 5e driver.
e. If using a PScript driver try changing the Post Script Language level setting found under the “Advance” Tab \ Post Script Options.
f. If using any of the drivers available with product validate the Document Options selection is set to “Advanced Printing Features” and it is set to “Enabled”. This setting is found under the “Advanced” tab.
g. If graphics are used, try using fewer graphics on each page or rearrange the graphics on the page.
h. Change the graphics mode in the Printer Preferences (PCL 5e or PLC 6 only)

4. Errors are seen when printing outside the Microsoft Windows environment or the problematic environment cannot be determined.

a. If UNIX is being used validate that the correct HP device specific Model Script is being used.
b. If an AS400 environment with IPDS validate that the product is using an IPDS DIMM and the DIMM is the correct one for the product and is actually supported and designed for the product it is being used in.
c. If any kind of font DIMM or accessory DIMM is being used validate that it is the correct one for the product.
d. Eliminate applications for a period of time to see if the errors disappear.
e. If the device only fails with one application print different document within the same application to see if it can be narrowed down to one document and it characteristics or if has to do with the overall settings of the application it’s self.
f. If narrowed down to one file or special characteristics of a file document all details about the file and it characteristics and escalate the file and all details to the regions HP Customer Care center.

Errors are seen when Copy, Sending or Faxing

1. Copy

a. If a copy tracking device is being used remove it from the device. For further details see NOTE #1 in the Hardware section.
b. If a particular procedure or group of settings is being used to achieve a desired output and or finishing capability. This combination is also responsible for causing the error. If this is the case try eliminating some of the selections until the error no longer presents its self. Then use alternative methods to achieve the

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desired output like using the ADF instead of the platen (flatbed) or hand stapling the output.

2. Faxing

    a. Turn off JBig compression
    b. Try a disk init. See service manual for instructions on how to perform this action.
    c. Move the fax to another location. It may be that they have noise on the line, an alarm, etc.
    d. Turn ECM off, turn off V.34 and set the baud rate to 9,600 or lower.
    e. Ensure fax firmware version is at the latest.
    f. Ensure firmware version for fax matches device firmware.
    g. Ensure customer is using an analog line and phone cable that came with unit.
    h. Reset fax to factory defaults; configure just the basic settings needed to operate (country code, company name, and fax number).
    i. Reseat fax modem in formatter (or Xircom card if legacy MFP).

3. Sending

    a. They should try the software from another PC if possible.
    b. Configure via the EWS. Verify that they are using the service (i.e. - when setting up email via dss it is possible to select to send emails via the MFP or via the service - both should be tried and verified).
    c. Disable firewall software, virus checker, internet blockers, spyware/adware.
    d. If the customer's setup was working previously and now does not work, what has changed on the PC or network? (configurations changed or new applications added or updated)

Environmental (Networking)

1. EIO or Embedded Jet Direct
    a. Upgrade the EIO or Embedded Jet Direct firmware.
    b. Turn off unused protocols.
    c. Try a different network drop or cable.

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Hardware Troubleshooting

1. Once the printer/MFP is in the error state turn the printer/MFP Off and unplug the network cable if attached. Power the printer On and verify it reaches a READY status.

2. If the printer/MFP returns to a READY status, print the Menu map, Configuration pages an EIO page. If the printer/MFP encounters a 49 error during the printing of these pages, move to step 4

3. Did the internal test pages print without error? If the answer is NO then move to step 4. If the answer is YES, then basic printer/MFP functionality has been proven. After reviewing NOTE #1 below, continue onto the next section “Troubleshooting by Isolation” to continue isolating the issue. At this point, the cause of the issue is most likely not related to any hardware component attached to the device or formatter/print controller.

4. If the answer is NO then the 49.XXXX errors have been isolated to the printer/MFP in stand alone condition. The next step to take is to remove the JetDirect Card if equipped, the hard drive if equipped, any HP paper handling accessories (see NOTE # 2), all third-party DIMMs (leave the minimum HP memory installed) and all third party solution components and/or accessories.

5. Once all components have been removed, print a Configuration page and an EIO page. (note that an EIO page will not print out if there is no JetDirect card installed) Did the internal test pages print OK? If the answer is YES, then the issue has been isolated to one or more components previously removed. Move to step 6. If the answer is NO, move to step 7.

6. Add the components back to the formatter and device one at a time and print the Configuration page after each individual component is added. Continue adding a component and printing the Configuration page until the faulty component has been identified. Once identified replace the faulty component or contact the solution and/or accessory vendor to learn if they are aware of the issue and if a solution is available. If no solution is available, then most likely it may necessary to escalate the issue to the vendor for resolution.

When a third party accessory is attached

NOTE: As mentioned earlier some solutions and accessories may not be 100% compatible with a newer version of HP firmware. Therefore if a third

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party solution/accessory is being used it my be necessary to perform the steps below before performing an HP firmware update.)

a. In some rare circumstances performing a unique combination of control panel selections, procedures or the use of a product feature that uses the accessory or solution may cause an error to be displayed
b. If product features are being used that rely on or exercise these solutions or accessories it is recommended that the solution or accessory be removed from the device for a short period of time (3 to 5 days).
c. Once this is done, the customer should continue to use the device as closely as they can to how the device was being used before the removal.
d. While this test is being performed, the device's event log needs to be monitored to determine if the errors are being encountered while the accessory/solutions are removed.
e. If the errors do not appear during the time frame while the solution/accessories are removed or reappear after the solution/accessory is reinstalled then there is a good probability that the solution/accessories is helping to initiate the error.
f. f. If this is the situation, it is recommended that the customer or service engineer contact the solution provider for additional trouble shooting steps or known issues.
g. It is also important to have the machine watched closely after the accessories have been reattached to determine if the condition that initiates the error can be document by an end user or operator so that this can then be provided to the solution vendor.

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7. If the device does not return to a READY state, try a Cold Reset. This reset will set most control panel settings back to factory defaults. (Steps to perform a Cold Reset should be documented in the Service manual.)

CAUTION: Performing a Cold Reset may reset the EIO or Embedded Jet Direct configuration back to factory defaults. Removing the EIO card before the reset should retain the settings.

8. Did the Cold Reset eliminate the error? If the answer is NO, move to step "If the Cold Reset did eliminate the error", it may because there was a combination of settings on the device that was responsible for the error. The customer should be informed that they will need to verify all of their control panel settings and reconfigure those that were reset by the Cold Reset. The Menu Map that was printed before the Cold Reset can be used to help identify most settings. Ask the customer to document the settings they reconfigured so that if the error returns they will have more

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detail as to what settings may be responsible for the error. Printing the Menu map after the reconfigurations is a good way to document what was reconfigured.

9. If the answer is NO, then the problem can possibly be isolated to the formatter. Try reseating the formatter/print controller and all components attached to the formatter. Attempt to print the Configuration page from the control panel. If the error continues, then replace formatter / print controller and firmware DIMM. Please provide the exact 49.XXXX error message in the service order.

Paper Handling Accessories
Recently installed paper handling accessories such as a 2,000-sheet input tray or finishing device could be responsible. If a device has been purchased separately from the device, it may not contain the latest firmware and therefore be out of sync with the device. It is possible for a 49 error to occur if either the printer or the accessories have a revision of firmware that was not released with the other in the current .rfu firmware bundle for the device. The firmware for the HP LaserJet device and accessories are "matched" for optimal performance (certain revisions of printer firmware are tested with certain revisions of accessory firmware to assure optimal performance). When the printer firmware is updated, the attached accessories firmware will also be updated to ensure a matched tested firmware set. Mismatches can occur if accessories are added that do not have the latest firmware as the printer/MFP or if the accessories have the latest firmware and the printer/MFP does not.

Whole Unit exchange

It is highly recommended that the process of swapping a unit with a loaner or new unit not be used unless it is the only troubleshooting method the customer is willing to use/accept. In most cases, it is likely that this will not resolve the issue. In some circumstances the replacement device may eliminate the error for a period of time because of the different configuration settings that the unit arrives with or because certain settings have not been set or reconfigured by the administrator. It is not likely that the returned unit will generate the errors once returned to the Authorized Service Provider or HP. This is because it is very unlikely that the environment or configurations and use models used by the customer can be recreated. Only if the device fails in a stand alone fashion is the error likely to be recreated. In this case, it is likely that a component or firmware mismatch on the device is responsible for the error.

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Tools

Use this table to determine what information to gather for each feature. This information should be used to help with the isolation process. It should also be provided to HP support to help understand all that is unique about the products configuration and its environment.

Information to gather from the device (For all 49 errors)	Gathered
Configuration and EIO pages	
Menu Map	
Event Log	
File Directory Page	
Management lists (LJ9055/LJ9065 MFP specific)	
ENVIRONMENTAL (If software/drivers and printing is suspected)	
Does the 49 error occur only when printing a specific job? If so, gather the following:	
What print server OS, including service pack level?	
What client OS, including service pack level?	
What driver(s), including PDL and version?	
Does changing drivers cause the same error?	

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Information to gather from the device (For all 49 errors)	Gathered
Does changing driver settings cause the same error?	
What application, including version?	
What are the printer driver settings when the error occurs?	
Does it fail consistently? If not, how frequently?	
Does the same job from multiple clients fail?	
Do all jobs fail from that specific application?	
Does changing print path cause same error? For example, what if printing directly to the printer or print through a different print server?	
Can we obtain an output file that causes the 49 error on the customer's printer(s)?	
If Copying is suspected	
What features are being used?	
Specific detailed explanations of how the feature/s are being used including how and what they are copying	
If Sending is suspected	
Autostore/DSS workflow log files Latest version of jar files for Autostore/DSS workflow.	
Topology between DSS and MFP (be specific).	

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Information to gather from the device (For all 49 errors)	Gathered
Some background There are four principal topologies used in LANs. Bus topology: All devices are connected to a central cable , called the bus or backbone . Bus networks are relatively inexpensive and easy to install for small networks. Ethernet systems use a bus topology. Ring topology : All devices are connected to one another in the shape of a closed loop, so that each device is connected directly to two other devices, one on either side of it. Ring topologies are relatively expensive and difficult to install, but they offer high bandwidth and can span large distances. Star topology: All devices are connected to a central hub . Star networks are relatively easy to install and manage, but bottlenecks can occur because all data must pass through the hub. Tree topology: A tree topology combines characteristics of linear bus and star topologies. It consists of groups of star-configured workstations connected to a linear bus backbone cable. These topologies can also be mixed. For example, a bus-star network consists of a high-bandwidth bus, called the backbone, which connects a collection of slower-bandwidth star segments. **NOTE:** One or more of the links above will take you outside the Hewlett-Packard Web site. HP does not control and is not responsible for information outside of the HP Web site.	
Is secure disk erase enabled or disabled?	
Version of DSS (About tab).	
How is DSS configured (Send-to-Folder, Workflows, OCR, Authentication, Email, etc.)	
Any firewall software, virus checker, internet blockers, spyware/adware installed on the PC?	
Are we using the service or the MFP? (i.e. - when setting up email via dss it is possible to make a selection to send emails	

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Information to gather from the device (For all 49 errors)	Gathered
via the MFP or via the service - both should be tried and verified).	
Copy of customer's file: hpbs2e.ini (DSS), aslight.cfg (Workflow 3.0), xxyy.cfg (Autostore; customer names the file).	
If Faxing is suspected	
Gather Configuration pages (to get Fax modem FW version and MFP FW version).	
Gather Fax Logs (T30's, Fax Activity log)	
If fax modem card is removed does the 49 error go away?	
Does the 49 error only occur from a specific number or several numbers? Receiving faxes from a LanFax solution has caused 49 errors. If a specific number is giving a 49 error, try to find out what type of fax they are sending from, model, model #, etc.	
Is Secure disk erase enabled?	
Does the 49 error go away by replacing or swapping the card with a known working fax?	
Ensure fax firmware version is at the latest.	
Reset fax to factory defaults; configure just the basic settings needed to operate (country code, company name, and fax number).	
Reseat fax modem in formatter (or Xircom card if legacy MFP).	
Ensure firmware version for fax matches device firmware.	

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Information to gather from the device (For all 49 errors)	Gathered
Ensure customer is using an analog line and phone cable that came with unit.	

Stack Traces

LJ9055 and LJ9065 MFP

1. While the machine is displaying the 49.xxxx service error press the Mode selection button and select the PRINT mode screen.
2. Then press 5 hard key, the 4 hard key and then use the 8 hard key to scroll through the stack.
3. Write down scroll through the stack trace, writing down each line in ascending order.

Single function printers and the LJ4100MFP)

1. While the machine is displaying the 49.xxxx Service Error press the “Checkmark” key on the Control Panel
2. Then press the “Left Arrow” key on the Control Panel
3. The machine is now in a view mode.
4. Use the “Up” and “Down” arrows to scroll through the stack trace, writing down each line in ascending order.

MFP units but not the LJ4100MFP, LJ9055 and LJ9065MFP

1. While the machine is displaying the 49.xxxx Service Error Press the 6 hard key on the Control Panel.
2. Then press the 5 hard key on the Control Panel
3. The machine is now in a view mode.
4. Use the 3 hard key and 9 hard key to scroll through the stack trace, writing down each line in ascending order.

Background

49.xxxx errors are displayed when the MFP or printer has been asked to perform an action that the devices firmware is not capable of and may not have been designed to comply with. When this action is encountered such as printing a file with unsupported programming commands or interfacing with a third party solution that was not designed to work with the product the firmware has no way to accomplish the action and therefore displays the error when it can no longer accomplish the task it has been asked to complete. An example of what happens in the firmware code would be if asked to perform an action in the

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code like dividing by zero. This is obviously a task that cannot be done and therefore the only action the device can take is to display the error.

In all circumstances, the only way to bring the device back to a READY state is to power cycle the unit. In some situations, a component attached to the device may be responsible for the error and the error will return immediately after a power cycle. In other situations, after the power cycle is performed and the responsible action is attempted again it is most likely that the error will return.

The bottom line to resolving a 49 error is to determine the root cause of the error. Once that has been done the task, process or action responsible for the error either needs to not be attempted on the device or an alternative way to perform it needs to be used. If no alternative is found and it is pertinent that the action be preformed then the issue must be escalated to Hewlett-Packard so the HP can determine if any alternatives are available or if changes can be made to the product to remedy the error. If the product does not support the function, it is most likely that no solution will be provided other than eliminating the device from displaying the error when the action is attempted again.

Examples of items that have been responsible for errors in the past

For each category below, items have been provided on specific items that have been known to cause errors in the past:

1. Printing:

    - Printing files such as a PDF that contains data that the printer/MFP may not be able to render. This can be because the file is corrupted or contains non- supported or dated programming language commands.
    - Unsupported network protocols or configurations and/or incorrectly configured network settings.
    - Using printer drivers from non HP products or performing an action with an HP driver that the product is not capable of.
    - Printing outside the Microsoft Windows environment. For example, using an AS400 system without the necessary language conversions components or with SW interfaces that may not be designed for the HP product printing to.

2. Network and EIO /Embedded Jet Direct
    - Network software that queries the device for information across the network
    - Unsupported network protocols or configurations and/or incorrectly configured network settings or cards.
    - Unsupported third part EIO devices
    - Incompatible firmware versions

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3. Copying:

    - In rare circumstances, choosing a combination for features or selections on the touch screen control panel may cause a 49 error to display. For example: Selecting an 8 ½ x 11 original with a Color Copy setting, Text content and Landscape orientation. Then making selections on the device for copy to be performed as Booklet copy of the original on A3 with 400% zoom and stored as a stored Copy job. In this example, a feature is chosen that is very unique and could not possibly be supported and therefore the device may not know how to perform this action. (Note that this example has not been known to cause an error but is only provided to give an idea of types of rare combinations might in some rare cases cause an error).

4. Sending

    - Using an outdated .JAR file or a .JAR file for another product.
    - Using older formatter firmware
    - Using an unsupported version of DSS or Autostore with particular version for firmware and .JAR file
    - Secure Disk enabled

5. Faxing

    - Fax files on the HD becoming corrupt (due to JBIG compression)
    - Sending or receiving faxes from fax servers

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